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10/728,065

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Jitendra Mohan

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EXAMINER

JEAN BART, RALPH

ART UNIT

PAPER NUMBER

2613

DATE MAILED: 10/25/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

|                              |                                      |  |  |
|------------------------------|--------------------------------------|--|--|
| <b>Office Action Summary</b> | <b>Application No.</b><br>10/728,065 | <b>Applicant(s)</b><br>MOHAN, JITENDRA |  |
|                              | <b>Examiner</b><br>Ralph Jean-Bart   | <b>Art Unit</b><br>2613                |  |

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

#### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

#### Status

- 1) ☒ Responsive to communication(s) filed on 07/012004.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

#### Disposition of Claims

- 4) ☒ Claim(s) 1-20 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-20 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

#### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

#### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All    b) ☐ Some \*    c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

#### Attachment(s)

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)                                | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)                       | 5) <input type="checkbox"/> Notice of Informal Patent Application                       |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)<br>Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____  |

### **Objections**

1. Paragraph 0035 introduces figures 4A through 4E, as simulation results should be changed to **figures 4B through 4E** because figure 4A shows a circuitry not a simulation. Correction is required.

### ***Claim Objections***

2. Regarding claims 1-14, the word "Selectively" renders the claim indefinite because it is not defined by the specification, and it is unclear whether the limitation(s) following the phrase are part of the claimed invention. See MPEP § 2173.05(d).
3. Claims 7 and 8 are objected to because of the following informalities: Regarding claim 7 the phrase "an optical subassembly including" should be deleted, and the phrase "the optical subassembly" should be changed to **including an optical subassembly** --. Regarding claim 8, the phrase "A computer including" should be deleted, and the phrase "the computer further comprising" should be changed to **further comprising**--. Claim must further limit claim dependent upon, referred to suggested modification. Correction is required.

### ***Claim Rejections - 35 USC § 102***

4. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section

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351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

5. Claims 1-7, 9-20 rejected under 35 U.S.C. 102(e) as being anticipated by Diaz et al (US 6,822,987)

6. With respect to claims 1,9, and 15 Diaz teaches a Photo Diode having a bandwidth only partially overlapping a lower end of a data transmission spectrum for the data rate (see figures 7A, 7B, and 7C, it should be noted that the original signal of figure 7A is different from 7B and 7C where the bandwidth results of the lower edge output is different from the original signal, thereby the output signal is partially overlapping the lower end of the transmission spectrum for the data rate, a light source emitting light at a selectively variable output power to transmit data at a given data rate (see figure 3 laser signal 250; abstract), a monitor diode positioned to receive at least a portion of the emitted light (see figure 3, element photo Diode 252; it should be noted that applicant's claimed at least a portion of the signal, and my reference shows that the photodiode receives the entire signal or emitted light which is at least a portion of the emitted light).

7. With respect to claims 2,3,10, 11,16, and 17 all the limitations of these claims have been discussed in claims 1, 9, and 15 above. Link and Diaz fail to teach the bandwidth of the monitor diode is less than or equal to one tenth and one fortieth of the data rate.

However, Diaz teaches a photo diode with a low pass filter (see figure 7A). Accordingly, it is the matter of design choice to vary the value of a capacitor or a

resistance of an integrated circuit in order for the bandwidth of the monitor diode changes to a fractional amount of the data rate.

8. With respect to With respect to claims 4 and 12, Diaz teaches a low pass filter (see figure 7A; column 10 lines 15-19).

9. With respect to claims 5,13, 18, and 19 all the limitations of these claims have been discussed in claims 1, 9, and 15 above. In addition, Diaz teaches peak detectors with exponential decay detecting peak-to-peak amplitude of an output signal for the photo Diode (see figure 3 Peak to peak detector 256; column 6 lines 13-18), the peak-to-peak amplitude is directly representative of optical modulation amplitude for the light source (column 5 lines 40-56).

10. With respect to claim 7, Diaz teaches the optical subassembly adapted for transmission of data over an optical transmission medium (see abstract).

11. With respect to claims 6,14, and 20 Diaz teaches a controller employing the output signals from the peak detectors to control output power from the light source (see figure 3 peak to peak detector 256, average power detector 258; column 6 lines 13-18)

12. Claim 8 is rejected under 35 U.S.C. 103(a) as being unpatentable over Diaz (US 6,822,987), and Link (5,850,409) as applied to claim 7 above, and further in view of Lichtman et al (US 7,106,969).

13. With respect to claim 8, all the limitations of this claim have been discussed in claim 7 above. Diaz and Link fail to teach a processor coupled to the controller and a network connection through the optical subassembly to the optical transmission medium.

However, Lichtman teaches a processor coupled to a controller (see figure 8 elements controller 122 which is coupled to a central management 123; it should be noted, the central management is referred as the controller), a network connection through the optical subassembly to the optical transmission medium (see figure 8 input element Ingress optical 112 and output element Egress optical 124).

Therefore, it would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains to have modified the High speed laser array of Diaz, and the Laser Modulation Control of Link, by incorporating a processor coupled to a controller, a network connection through the optical subassembly to the optical transmission medium.

The motivation for this modification is to provide the bi-directional communications benefit of ring networks, and also provide a solution to amplifier noise accumulation in optical ring networks that reduces cost, and eliminates the need for complex based hardware as taught by Lichtman (see Lichtman column 4 lines 10-14)

### **Conclusion**

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Ralph Jean-Bart whose telephone number is (571)270-1017. The examiner can normally be reached on Mon-Thurs 7:30-5:00PM; Fri 7:30-4:00PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Kenneth Vanderpuye can be reached on (571)272-3078. The fax phone


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number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

RJB  
Ralph Jean-Bart

10/10/06

  
KENNETH VANDERPUYE  
SUPERVISORY PATENT EXAMINER